

Status of Current FHWA Noise Activities

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Highway Traffic Noise Team

ADC40/ 2005 Summer Meeting
A1F04 Seattle, Washington





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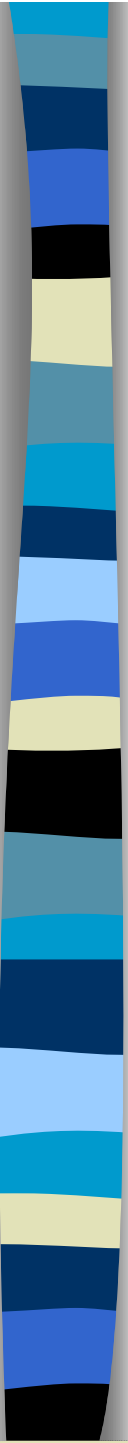
202.366.1473

FHWA – Office of Natural and Human Environment

HEPN-20, Room 3240

400 Seventh Street, SE

Washington, DC 20590



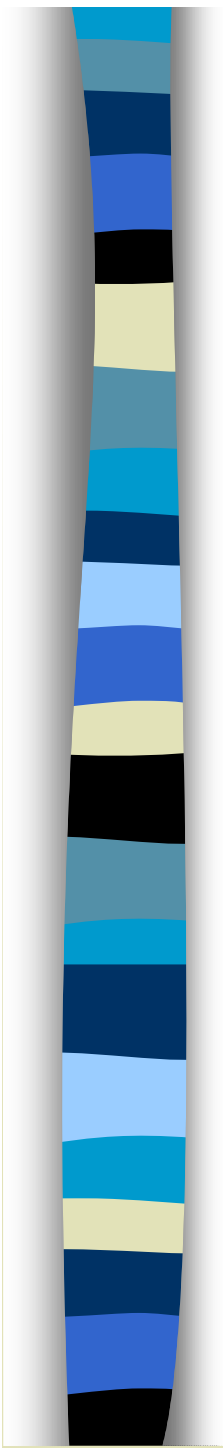
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FHWA TNM

- Final Rule
- Version 3.0
- Phase 2 Validation
- TNM v2.5 Look-up Tables



23 CFR, Part 772 Final Rule

- Specifics of the regulatory change
 - Required use of the FHWA TNM (772.17)
 - 4 ministerial changes (772.13)
 - All references to previous model, vehicle noise emission levels and noise measurement report
- Confusion regarding the:
 - Effective date of the FHWA TNM
 - Which FHWA TNM version to use on projects



FHWA TNM v3.0

- Version 3.0 under development
 - Contemporizes the code
 - Correcting platform incompatibility
 - Further software development and maintenance
 - Redesigned database
 - GUI enhancements
- Expected completion: Fall 2006

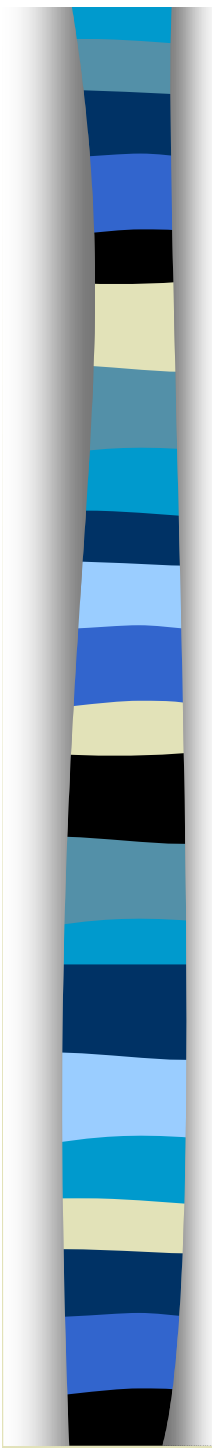


FHWA TNM Validation

- Phase 2 Validation to exam:
 - Variation in user methodologies and the resulting effect on predicted noise levels,
 - The proper use of ground types, and
 - Possibly examining more highway sites

- Phase 2 Validation will provide the user:
 - Further modeling guidance
 - Identify other acoustical improvements

- Expected completion: Summer 2006



FHWA TNM v2.5 Look-up Tables

- Released December 2004
- Use a screening tool, acknowledging limitations
- Receiving increasing use
- A State DOT should have a policy/guidance on how to use the results



Quiet Pavements

- Pavement Noise Policy
- QPPP and Quiet Pavement Research



Pavement Noise Policy

- Prohibits making adjustments for specific pavement types in prediction of noise levels
 - Only “Average” pavement type is allowed in TNM
- Prohibits the use of pavement types/surface textures as a noise abatement measure
- Commitments to provide required noise reduction in perpetuity



QPPP vs. Quiet Pavement Research

- The data gathered for both a QPPP and quiet pavement research are exactly the same.
 - This allows data for a specific pavement type from either source to be compared directly
 - This can help determine any correlation between pavement characteristics (e.g., texture or skid resistance), safety, durability, and noise reduction.



QPPP vs. Quiet Pavement Research

- In a QPPP acceptable documentation is known, so
 - Pavement type can be used in TNM
 - Specific pavement types can be used as a mitigation measure
- In "quiet pavement" research acceptable documentation is not known, so
 - TNM adjustments and pavement types as a mitigation measure can not be used.
 - These determinations will not be made until the "quiet pavement" research is completed.



QPPP vs. Quiet Pavement Research

- A commitment to monitor noise levels and take appropriate actions, if the noise reduction benefits do not last in perpetuity.
 - In a QPPP this is an requirement
 - In a quiet pavement research this is not a requirement, since no change in program policy



What Needs to be Done to Change Current Policy?

- Noise data must be gathered to document the noise levels in residents' backyards
- Know the changes in pavement noise mitigation properties over time
- The mitigation measure needs to be maintained in perpetuity



If Policy Change would occur?

- In the short term, any policy change will be state specific
 - Only applied to a certain state for a specified pavement type and/or texture
- If warranted, changes in national policy may be considered in the future.



Tire/Pavement Noise Initiatives

- Tire/Pavement Noise Clearinghouse
- Tire/Pavement Noise 101 Workshop
- Expert Task Group for Tire/Pavement Noise
- 2006 Tire/Pavement Noise Strategic Planning Workshop
- Recommendations/Findings from QPPP and quiet pavement research
- NCHRP:
 - 1-44:Measuring Tire-Pavement Noise at the Source
 - 08-56:Truck Source Mapping



Noise Compatible Land Use Planning Workshops

- Texas Southern University (5 Workshops)
 - Austin, Texas: April 15, 2005
 - Phoenix, Arizona: April 25, 2005
 - Seattle, Washington: August 16 2005
 - Columbus, Ohio: August 22, 2005
 - Orlando, Florida: September 9, 2005 (tentative)

- North Atlantic Transportation Planning Officials (NATPO) Conference
 - Harrisburg, Pennsylvania: August 14-16, 2005



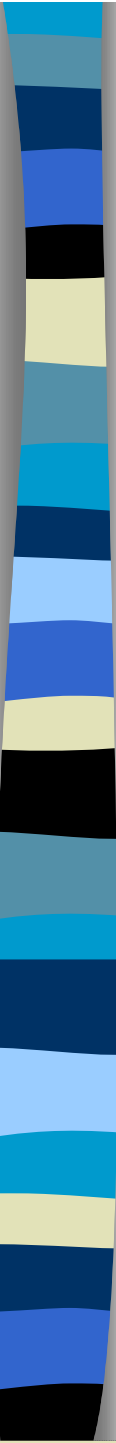
FHWA Highway Traffic Noise Training/workshops

- NHI
- FHWA Noise Team



Revisions to Policy Paper

- FHWA Noise Team (HQ + Resource Center)
- FHWA Division Offices (6 or so)
- Chief Council's Office
- Changes:
 - Update with information since 1995
 - Reorganize
 - Separate policy from guidance
 - \$15K-\$50K range adjusted for inflation



2002-2004 Noise Barrier Inventory

- 5 states still have provided listing.
- Hope to have out by the end of 2005.
 - Need inflation cost